

## CLAIMS

1. A method for conditioning ambient air in a room of a building in terms of heat and/or cold and  
5      optionally humidity, incoming air flowing into the room of the building and outgoing air being conducted out of the room of the building and - preferably - sensible or recuperative heat exchange being carried out between the incoming air and the  
10     outgoing air prior to inflow of the incoming air into the room of the building and after exit of the outgoing air from the room of the building, characterized in that a separate incoming-air conduction feature, which forms an incoming-air  
15     flow, is provided and in that the ambient air in the room is modified in its thermal content by arrangement of latent heat accumulator bodies, by means of latent heat accumulator bodies located in the room of the building.  
20
2. Method according to the features of the precharacterizing clause of Claim 1 or according to Claim 1, characterized in that (as an optional addition) the incoming air is conditioned by means  
25     of latent heat accumulator bodies located outside the room of the building prior to inflow into the room of the building.
3. Method according to Claim 1 or 2, characterized in  
30     that, for conditioning the incoming air for a plurality of rooms of a building, for example for the rooms of one storey of a multistorey (office) building, a plurality of latent heat accumulator bodies are located in a separate conditioning room.  
35
4. Method according to one or more of the preceding claims or in particular according thereto, characterized in that the incoming air or outgoing

- 40 -

air within the room of the building or the conditioning room is modified in its thermal content by means of the latent heat accumulator bodies.

5

5. Method according to one or more of the preceding claims, or in particular according thereto, characterized in that the phase change temperature of latent heat accumulator material contained in the latent heat accumulator body lies within comfortable temperature limits predetermined for the room of the building.

10

6. Method according to one or more of the preceding claims, or in particular according thereto, characterized in that the phase change temperature lies in the range from 20 to 26°C.

15

7. Method according to one or more of the preceding claims, or in particular according thereto, characterized in that the latent heat accumulator bodies are associated with the ceiling of the room of the building.

20

25

8. Method according to one or more of the preceding claims, or in particular according thereto, characterized in that the latent heat accumulator bodies are located above an air-permeable visible ceiling.

30

35

9. Method according to one or more of the preceding claims, or in particular according thereto, characterized in that the charging and discharging of the latent heat accumulator bodies is performed by different conditioning of the ambient air in the room.

- 41 -

10. Method according to one or more of the preceding claims or in particular according thereto, characterized in that the charging and discharging of the latent heat accumulator bodies is performed by different daytime/nighttime conditioning of the ambient air in the room.
11. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that charging and discharging of the latent heat accumulator bodies by the incoming air or outgoing air is performed by using opposed loading cases.
- 15 12. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the incoming air and outgoing air is made to flow along on the latent heat accumulator body.
- 20 13. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the incoming air is introduced above the false ceiling and in that the outgoing air is removed by suction above the false ceiling.
- 30 14. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that a regenerative heat exchange between the incoming air and the outgoing air is carried out outside the room of the building.
- 35 15. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the incoming air is sucked along above plate latent

- 42 -

heat accumulator bodies located in the vicinity of the ceiling, preferably parallel to the ceiling, through which the incoming air is sucked along in the induction path, and is blown out underneath the heat exchangers, by utilizing the Koanda effect, along the latent heat accumulator bodies.

5

16. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the outgoing air is removed by suction above the ceiling latent heat accumulator bodies, but the incoming air is blown in underneath the ceiling latent heat accumulator bodies.

10

17. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that a latent heat accumulator body is formed as a latent heat accumulator cassette.

15

18. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the latent heat accumulator bodies are formed in the manner of plates.

20

19. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the latent heat accumulator material is located in a foam matrix of an open-pore foam.

25

20. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that the latent heat accumulator material is covered

30

35

- 43 -

over by a vapor-diffusion-impermeable covering, for instance an aluminum foil.

21. A method for heating and/or cooling according to  
5 one or more of the preceding claims or in particular according thereto, characterized in that the incoming air and outgoing air is conducted in such a way that an incoming-air stream and an outgoing-air stream flows along on the latent heat  
10 accumulator body.
22. A method for heating and/or cooling according to one or more of the preceding claims or in particular according thereto, characterized in that  
15 an incoming-air stream and an outgoing-air stream induces a secondary flow.
23. A method for heating and/or cooling according to one or more of the preceding claims or in  
20 particular according thereto, characterized in that a circulating air mode is operated in the heating period outside office hours, for heating up the latent heat accumulator bodies by means of machine-associated heat sources in the room of the  
25 building.
24. A thermal buffer element on a latent heat basis for room air-conditioning, with latent heat accumulator outer chimney surfaces of one or more latent heat  
30 accumulator elements, the surfaces forming a chimney-like air flow path between them and being located opposite one another.
25. Thermal buffer element according to Claim 16 or in  
35 particular according thereto, characterized in that the thermal buffer element is a sound-absorbing element.

- 44 -

26. Thermal buffer element according to Claim 16 or 17 or in particular according thereto, characterized in that the sound-absorbing element is located opposite from the outer chimney surface of the latent heat accumulator element.  
5
27. Thermal buffer element according to one of Claims 16 to 18 or in particular according thereto, characterized in that the thermal buffer element is mobile.  
10
28. A latent heat accumulator body, in particular for use in a method according to one of Claims 1 to 15 or in the case of an item according to one of Claims 16 to 19, characterized by a plurality of latent heat accumulator sub-bodies located inside a closed outer holding wall.  
15
29. A latent heat accumulator body, in particular for use in a method according to one of Claims 1 to 15 or in the case of an item according to one of Claims 16 to 20, characterized by a cassette-like form.  
20
- 25 30. Latent heat accumulator body according to Claim 20 or in particular according thereto, characterized in that the latent heat accumulator sub-bodies leave air spaces between them.
- 30 31. Latent heat accumulator body according to one of Claims 20 to 22 or in particular according thereto, characterized in that the outer holding walls form a seal-closable opening.  
35 32. Latent heat accumulator body according to one of Claims 20 to 23 or in particular according thereto, characterized by a latent heat accumulator gel substance located inside the outer holding wall.

- 45 -

33. Latent heat accumulator body according to one of Claims 20 to 24 or in particular according thereto, characterized by a graphite-based latent accumulator body matrix located inside the outer holding wall.  
5
34. Latent heat accumulator body according to one or more of the preceding Claims 20 to 25 or in particular according thereto, characterized in that a latent heat accumulator outer surface is provided with a moisture-accumulating material.  
10
35. Latent heat accumulator body according to one or more of the preceding Claims 20 to 26 or in particular according thereto, characterized in that the moisture-accumulating material is a pumice stone.  
15
36. Latent heat accumulator body according to one or more of the preceding Claims 20 to 27 or in particular according thereto, characterized in that the moisture-accumulating material is a moisture-absorbing plaster.  
20
37. An arrangement of latent accumulator bodies in a room of a building, characterized by latent heat accumulator bodies formed as flat bodies being located in the vicinity of the ceiling.  
25
38. Arrangement according to Claim 29 or in particular according thereto, characterized in that the latent heat accumulator bodies are located above an air-permeable visible ceiling.  
30
39. Arrangement according to either of Claims 29 and 30 or in particular according thereto, characterized in that the latent heat accumulator bodies are  
35

- 46 -

located on the upper side of the visible ceiling with a spacing provided by means of supports.

40. Arrangement according to one of Claims 29 to 31 or  
5       in particular according thereto, characterized in  
that the latent heat accumulator bodies are  
associated with an incoming-air opening.
41. Arrangement according to one of Claims 29 to 32 or  
10      in particular according thereto, characterized in  
that two or more latent heat accumulator bodies or  
rows of latent heat accumulator bodies are located  
one above the other.
- 15     42. Arrangement according to one of Claims 29 to 33 or  
in particular according thereto, characterized in  
that a flow path between latent heat accumulator  
bodies located one above the other is closable by  
means of a flap, associated with the incoming-air  
20      opening.
- 25     43. A building with a plurality of rooms, a room of the  
building having an air-supply line and an air-exit  
line, which are connected, preferably outside the  
room of the building, via a heat exchanger for  
carrying out a sensible or recuperative heat  
exchange, characterized in that latent heat  
30      accumulator bodies are located within the room of  
the building, accessible to a free flow in the room  
and in association with a ceiling of the room, and  
in that the incoming air and/or outgoing air is  
modified in its thermal content by means of the  
latent heat accumulator bodies.